

GLENCOREBAH
173.22**FAX COVER SHEET****TO:** US Department of Transportation
Office of Hazardous Materials Standards**FAX NUMBER:** (202) 366-3012**ATTN:** Diane Lavalle**FROM:** Michael O'Connell**DATE:** February 22, 2001**NO. OF PAGES : 5**
(including cover)**RE:** Test results and Application for De-listing of Ferrosilicon

Please find attached Silicon Technology (Pty) Ltd test results.

Best regards,


Michael O'Connell
Glencore Ltd.

010061B

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1. Particulars of Applicant

Company Name: Silicon Technology (Pty) Ltd
Blairgowrie Drive
P.O. Box 1
Ballengeich
2942
South Africa

Tel no: (+27) 34 377 7210
Fax no: (+27) 34 377 7012

Contact Person: Hugh M Stewart

2. Background

Silicon Technology is a producer of ferrosilicon containing between 65 and 80% Si. This material has been classified "Dangerous when Wet", under the dangerous goods class 4.3, UN Number 1408. These materials are exported from South Africa to final destinations over the world and in particular the USA.

3. Regulation from which relief is sought

Code of Federal Regulations: Transportation (CFR), Title 49, Parts 100-177, 1993). Silicon Technology would like to apply for exemption from the regulations or alternatively having the product de-listed from the hazardous material list.

4. Modes of transportation

Material is transported in sea going vessels, mostly in bulk, but also at times in standard 20 foot containers or break bulk in 1 metric ton bulk bags, or in the form of bricks packed on wooden pallets and shrink wrapped.

The material destined for the USA is shipped mainly through the port of New Orleans, from where the material is barged up the river system to warehouses in the Pittsburgh Pennsylvania or Marietta Ohio areas.

5. Basis for the proposed exemption/approval

It is known that other ferrosilicon traders in the USA have been granted exemption from the federal regulations for shipping ferrosilicon in the USA. This had been done on the basis of proving that gas generated by their material when exposed to water, is substantially less than the required amount of gas generation specified by the regulations.

Silicon Technology has had tests done on its materials by an independent laboratory, namely the South African Bureau of Standards for gas generation in terms of SABS 0228. SABS 0228 is based on the UN Recommendations on the transport of dangerous goods. The test results for the different types of materials, are attached to this document. It is clear from the various results that gas generation from the ferrosilicon when exposed to water, is insignificant compared to the federal regulations requirement of a rate greater than 1 liter per kilogram of material, per hour.

6. Materials planned for transportation

- a. Ferrosilicon 75% Si, shipped in bulk, break bulk or containerised.
- b. Ferrosilicon dross (typically 40-48% Si), shipped in bulk, break bulk or containerised.
- c. Ferrosilicon bricks, shipped break bulk (shrink wrapped on wooden pallets)

ANNEXURE A

SABS TEST REPORT NO 5140/1412630/T1001

TEST REPORT

TOETSVERSLAG

SABS

South African Bureau of Standards
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Private Bag X191, Pretoria, 0001
Tel (012) 428-7911 Fax (012) 344-1998
Int. code +27 12

Suid-Afrikaanse Buro vir Standaarde
Dr Lateganweg 1, Groenkloof
Privatstasie X191, Pretoria, 0001
Tel (012) 428-7911 Faks (012) 344-1998
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Your ref: O/No. 30381
Our ref: 5140/DG/1
Enquiries: MM Fourie (Mrs)
Tel: (012) 428-7070
Report No: 5140/1412830/T1001
Date: 7 April 2000
Bladsy/Page: 1 van/of 2

Silicon Technology (Pty) Ltd
PO Box 1
BALLENGEICH
2042

FERROSILICON

1 DESCRIPTION OF SAMPLES

1.1 Five samples of ferrosilicon in plastic bags closed with staples and marked as follows:

- a) SP 99/058; FeSi 0 x 2 mm; RBM.
- b) SPS 99/058; FeSi 3 x 8 mm; ISCOR.
- c) SP 99/058; FeSi 30 x 80 mm; Slag lumps.
- d) FeSi 27 x 75 mm; U.S.A.
- e) SP/058; 10 x 50 mm; FeSi Bricks.

*NOTE - Condensed moisture was observed on the inside of the plastic bag.

1.2 The samples were received on 12 January 2000 and the testing commenced on 7 February 2000.

2 REQUEST

- 2.1 To test the samples for gas emission on contact with water.
- 2.2 To classify the samples for transportation purposes.

3. METHODS

This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested. (Refer also to the complete conditions printed on the back of official test reports.)

Hierdie verslag het slegs betrekking op die spesifieke monster(s) wat getoets is, soos hierin geïdentifiseer. Dit impliseer nie dat die kwaliteit en/of prestatie van die betrokke artikel(s) deur die SABS goedgekeur is nie en die toetsresultate is nie van toepassing op 'n soortgelyke artikel wat nie getoets is nie. (Sien ook die volledige voorwaardes op die rugkant van amptelike toetsverslae.)

South African Bureau of Standards

Suid-Afrikaanse Buro vir Standaarde

REPORT
VERSLAG No. 5140/1412630/T1001

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3 METHODS

- 3.1 The gas emission on contact with water was done in accordance with clause 9.3.2.3.4 of SABS 0228, *The identification and classification of dangerous substances and goods.*
- 3.2 The samples were classified in accordance with SABS 0228.

NOTE - SABS 0228 is based on the UN "Recommendations on the transport of dangerous goods" that have been modified for South African demands.

4 RESULTS

Sample description	Measuring time, h	Gas evolution @kg-h
SP 99/058; FeSi 0 x 2 mm; RBM	208	0,0019
SPS 99/058; FeSi 3 x 8 mm; ISCOR	144	none
SP 99/058; FeSi 30 x 80 mm; Slag lumps	168	none
FeSi 27 x 75 mm; U.S.A.	432	none
SP/058; 10 x 60 mm, FeSi Bricks	64,28	0,0101

5 CLASSIFICATION

- 5.1 A product is regarded as non-hazardous for transportation purposes if the rate of flammable gas evolution is lower than 1 l/kg per hour.
- 5.2 All five samples submitted are therefore non-hazardous for transportation.

MM Fourie

MM Fourie (Mrs)
SPECIALIST: DANGEROUS GOODS

REPORT/T1001(mh)

This report relates only to the samples tested and is issued subject to the conditions printed on the back of Page 1. It does not imply approval by the South African Bureau of Standards of the quality and/or performance of the commodity that has been tested. It does not authorize the use of the Standardization Mark.

Hierdie verslag is van toepassing slegs op die getoetste monsters en word uitgereik behoudens die voorwaardes op die keerwag van bladsy 1 gedruk. Dit beteken nie dat die Suid-Afrikaanse Buro vir Standaarde die kwaliteit en/of werkverrigting van die getoetste artikel goedkeur nie. Dit verleen ook nie die reg om die Standaardmerk te gebruik nie.